

### **REMARKS**

Claims 1-3, 13, and 17 have been amended. Accordingly, claims 1-7 and 12-17 are currently pending in the application, of which claim 1 is independent.

Applicant respectfully submits that the above amendments do not add new matter to the application and are fully supported by the specification. Support for the amendments may be found at least in Figure 1 and at page 4, lines 26-29 the specification.

Applicant requests entry of the amendment and reconsideration and timely withdrawal of the pending rejections for the reasons discussed below.

#### ***Drawing Objection***

The drawings were objected to as failing to show every feature of the invention specified in the claims. Applicant respectfully requests withdrawal of the drawing objection.

Per 35 U.S.C. § 113, "[t]he applicant shall furnish a drawing where necessary for the understanding of the subject matter sought to be patented" (emphasis added). The Office Action objects to the drawings for failing to show " -- "the second layer" -- in claim 12-17 of "the third layer" in claim 12-16 or "the contact metal layer is disposed directly on the gallium nitride-based semiconductor layer and comprises a Ni layer, an Ir layer, and a Pt layer" in claim 17" (Office Action, page 2). Here, the second layer and third layer are part of the contact metal layer per claims 12 and 14. Figure 1, however, shows contact metal layer 15. Essentially, the Examiner is requiring Applicant to submit a drawing that shows layer 15 divided into 3 layers. Surely, this amendment to the drawings is not necessary for the understanding of the subject matter sought to be patented. Further, since the contact metal layer is shown in Figure 1, Applicant respectfully submits that every claimed feature is shown in the drawings.

***Rejections Under 35 U.S.C. § 102***

Claims 1-7 stand rejected under 35 U.S.C. § 102(b) as being allegedly anticipated by U.S. Patent Application Publication No. 2003/0001170 applied for by Shibata, *et al.* ("Shibata").

In order for a rejection under 35 U.S.C. § 102(b) to be proper, a single reference must disclose every claimed feature. To be patentable, a claim need only recite a single novel feature that is not disclosed in the cited reference. Thus, the failure of a cited reference to disclose one or more claimed features renders the 35 U.S.C. § 102(b) rejection improper.

Applicant respectfully submits that the rejection of claim 1 must be withdrawn because Shibata fails to disclose every claimed feature. Amended claim 1 recites, *inter alia*:

a p-type ohmic electrode layer formed on the gallium nitride-based semiconductor layer,

wherein the p-type ohmic electrode layer comprises a contact metal layer, a reflective metal layer, and a diffusion barrier layer, the reflective metal layer being disposed between the contact metal layer and the diffusion barrier layer

The Office Action relies on Shibata's negative electrode 140 to teach the ohmic electrode layer of claim 1 (Office Action, page 4; Shibata, Fig. 4). Shibata's negative electrode 140, however, can not be relied upon to teach a p-type ohmic electrode layer as this term would be understood by a person of ordinary skill in the art.

Accordingly, Applicant respectfully requests withdrawal of the 35 U.S.C. § 102(b) rejection of claim 1. Claims 2-7 depend from claim 1 and are allowable at least for this reason. Since none of the other prior art of record discloses or suggests all the features of the claimed invention, Applicant respectfully submits that independent claim 1, and all the claims that depend therefrom, are allowable.

***Rejections Under 35 U.S.C. § 103***

Claims 1, 12, and 13 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Shibata. Applicant respectfully traverses this rejection for at least the following reasons.

To establish an obviousness rejection under 35 U.S.C. § 103(a), four factual inquiries must be examined. The four factual inquiries include (a) determining the scope and contents of the prior art; (b) ascertaining the differences between the prior art and the claims in issue; (c) resolving the level of ordinary skill in the pertinent art; and (d) evaluating evidence of secondary consideration. *Graham v. John Deere*, 383 U.S. 1, 17-18 (1966).

In view of these four factors, the analysis supporting a rejection under 35 U.S.C. 103(a) should be made explicit, and should "identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements" in the manner claimed. *KSR Int'l. Co. v. Teleflex, Inc.*, 127 S. Ct. 1727, 82 USPQ2d 1385, 1396 (2007). The Federal Circuit requires that "rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006).

Finally, even if the prior art may be combined, there must be a reasonable expectation of success, and the reference or references, when combined, must disclose or suggest every claimed feature. See *in re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The Office Action fails to establish a *prima facie* case of obviousness of claim 1. In this rejection, the Office Action cites Shibata's positive electrode 120 as teaching the ohmic electrode layer of claim 1 with the exception that the reflective metal layer is not disposed between the contact metal layer and the diffusion barrier layer (Office Action, page 7; Shibata, Fig. 4). Specifically, the Office Action relies on Shibata's layers 110, 121, and 123 to teach the

contact metal layer, the reflective metal layer, and the diffusion barrier layer, respectively, of claim 1 (Office Action, page 7). Recognizing, however, that layer 123 is not between layers 110 and 121, the Office Action concludes that this modification "is considered obvious because it is just a mere rearrangement of parts (i.e. moving layer Aluminum layer 123 to position between contact layers 110 and diffusion layer 121)" (Office Action, page 7). The Office Action continues, "[n]ote that it has been held in a previous court decision that rearranging parts of an invention involves only routine skill in the art. In re Japikse, 86 USPQ 70" (Office Action, page 7).

This analysis fails to establish a *prima facie* case of obviousness of claim 1 for at least two reasons.

First, *In re Japikse* dealt with claims to a hydraulic power press that read on the prior art except with regard to the position of a starting switch. The claims were deemed obvious because moving the starting switch would not have modified the device's operation (MPEP § 2144.04.VI.C). Here, however, moving layer 123 to a position between layers 110 and 121 is very different from merely moving the position of a starting switch. Unlike *In re Japikse*, this modification will modify Shibata's device's operation. Thus, *In re Japikse* is irrelevant to the Office Action's modification of claim 1, and the Office Action erroneously relies on *In re Japikse* for at least this reason.

Second, even if Office Action could appropriately rely on *In re Japikse*, the Office Action still fails to establish a *prima facie* case of obviousness:

The mere fact that a worker in the art could rearrange the parts of the reference device to meet the terms of the claims on appeal is not by itself sufficient to support a finding of obviousness. The prior art must provide a motivation or reason for the worker in the art, without the benefit of appellant's specification, to make the necessary changes in the reference device. MPEP § 2144.04.VI.C (emphasis added; citations omitted).

Here, the Office Action does not provide any reason that would have prompted a skilled artisan to make the necessary modification in Shibata's device. Thus, the Office Action fails to establish a *prima facie* case of obviousness of claim 1 for at least these reasons.

Accordingly, Applicant respectfully requests withdrawal of the 35 U.S.C. § 103(a) rejection of claim 1. Claims 12 and 13 depend from claim 1 and are allowable at least for this reason. Since none of the other prior art of record, whether taken alone or in any combination, discloses or suggests all the features of the claimed invention, Applicant respectfully submits that independent claim 1, and all the claims that depend therefrom, are allowable.

Claims 12-17 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Shibata in view of U.S. Patent No. 6,326,294 issued to Jang, *et al.* ("Jang"). Applicant respectfully traverses this rejection for at least the following reasons.

Applicant respectfully submits that claim 1 is allowable over Shibata, and Jang fails to cure the deficiencies of Shibata noted above with regard to claim 1. Hence, claims 12-17 are allowable at least because they depend from an allowable claim 1.

Accordingly, Applicant respectfully requests withdrawal of the 35 U.S.C. § 103(a) rejection of claims 12-17.

**CONCLUSION**

Applicant believes that a full and complete response has been made to the pending Office Action and respectfully submits that all of the stated objections and grounds for rejection have been overcome or rendered moot. Accordingly, Applicant respectfully submits that all pending claims are allowable and that the application is in condition for allowance.

Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact Applicant's undersigned representative at the number below to expedite prosecution.

Prompt and favorable consideration of this Reply is respectfully requested.

Respectfully submitted,

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